

CLAIMS

1. An implantable sensor comprising:
a biosensor;
an integrated circuit operatively coupled with the biosensor to operate and receive data from the biosensor; and
a power receiver operatively coupled with the integrated circuit and configured to rectify RF energy incident on the implantable sensor into DC power deliverable to the biosensor and the integrated circuit.
2. The implantable sensor of claim 1, further comprising:
an antenna coupled to the integrated circuit wherein the integrated circuit modulates data output from the biosensor into a signal and transmits the signal through the antenna.
3. The implantable sensor of claim 2, further comprising:
an external interrogator physically remote from the biosensor and integrated circuit, wherein the interrogator includes an RF power source for transmitting the RF energy to the integrated circuit and the biosensor.
4. The implantable sensor of claim 3, wherein the external interrogator includes a data acquisition module for receiving the modulated signal transmitted from the integrated circuit.
5. The implantable sensor of claim 1, wherein the biosensor is a glucose sensor.
6. The implantable sensor of claim 1, wherein the biosensor measures partial pressure of oxygen.

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7. The implantable sensor of claim 1, wherein the biosensor measures pH.
8. The implantable sensor of claim 1, wherein the biosensor measures lactate.
9. The implantable sensor of claim 1, wherein the biosensor measures potassium.
10. The implantable sensor of claim 1, wherein the biosensor detects the presence of a protein.
11. An implantable sensor comprising:
 - a biosensor;
 - means for controlling the biosensor; and
 - means for receiving RF energy from an external source, converting the energy to DC power, and powering the implantable sensor.
12. A method comprising:
 - injecting a capsule containing an un-powered biosensor subcutaneously into tissue;
 - placing an interrogator adjacent the tissue;
 - transmitting RF energy towards the capsule;
 - converting the RF energy into a DC power source within the capsule;
 - and
 - utilizing the DC power source to power biosensor.
13. The method of claim 12, further comprising:
 - transmitting data from the capsule to the interrogator.

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14. The method of claim 13, further comprising modulating the data within the capsule prior to transmitting.
15. The method of claim 12, wherein injecting the capsule include inserting the capsule into a syringe and delivering the capsule through the syringe.
16. The method of claim 12, wherein injecting includes delivering the capsule into a coronary sinus of a heart.
17. The method of claim 12, wherein injecting includes delivering the capsule into a right ventricle of a heart